GX Disc Printer

For Microsoft Windows® 7, Vista, and XP

Users Manual

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Tested to comply with FCC Standard FOR HOME AND OFFICE USE.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and antenna
- Connect the equipment into an outlet on a circuit different than that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Canadian Department of Communications (DOC) Statement

This Class B digital apparatus complies with the Canadian ICES-003 Issue 4:2004. Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canade.

Introduction

The Microboards GX Disc Printer is a manually loaded CD, DVD, and BD disc printer . Microboards and HP co-developed the printer technology, allowing up to 4800 x 1200 dpi printing.

SureThing Disc Labeler is packaged with the GX Disc Printer, providing you with an easy tool for designing and printing your labels.

What's Included

When unpacking your GX Disc Printer system, the following items should be included:

- GX Disc Printer print system
- GX Disc Printer Quick Start Guide
- Print Sample
- Power Cord
- Blank Printable CD's
- Users Manual (This document)
- Microboards GX Disc Printer Install CD (Includes Windows XP/Vista/7 drivers and SureThing Label software)
- Microboards GX-300HC Color Ink cartridge (14ml)
- USB Printer Cable
- Disc output assembly

If any of these items are missing, please contact your distributor or Microboards Technology Technical Support department at 952-556-1639.

The GX Disc Printer installation disc includes an Installer that will walk you through the process step by step. Please perform the installation in order as specified in the Installer before connecting to a computer.

System Requirements

The Microboards GX Disc Printer has the following minimum requirements and compatibilities:

Operating System

Microsoft Windows XP with SP2, Windows Vista, or Windows 7. 32- and 64-bit Operating Systems.

Processor

Pentium 4 (or equivalent) CPU, running at 2.0 GHz or faster.

System Memory

Minimum 1 GB of system memory.

Hard Drive Space

Only 10MB of free space is required on the system hard drive for the applications and drivers. Additional drive space will be required for saved disc labels.

USB Connection

USB 2.0 is recommended. USB 1.1 may be used but is not recommended, as using USB 1.1 may result in more time being necessary for print images to be passed to the printer.

Assembly and Ink Installation

Assembly Instructions

GX Disc Printer Assembly

Remove the GX Disc Printer system from the shipping box and confirm you received all of the items.

Place the GX Disc Printer on a stable, flat surface. You will need room both above and in front of the system, as discs will be accessed from both locations.

Remove the front cover and slide the Disc Output Bin onto the lip at the front of the GX Disc Printer.

Installing Ink Cartridges

Supported Ink Cartridges

The GX Disc Printer uses a single color ink cartridge. The part number for this cartridge is GX-300HC. If other cartridges are installed, the GX Disc Printer will not function. These cartridges are available from any Microboards reseller.

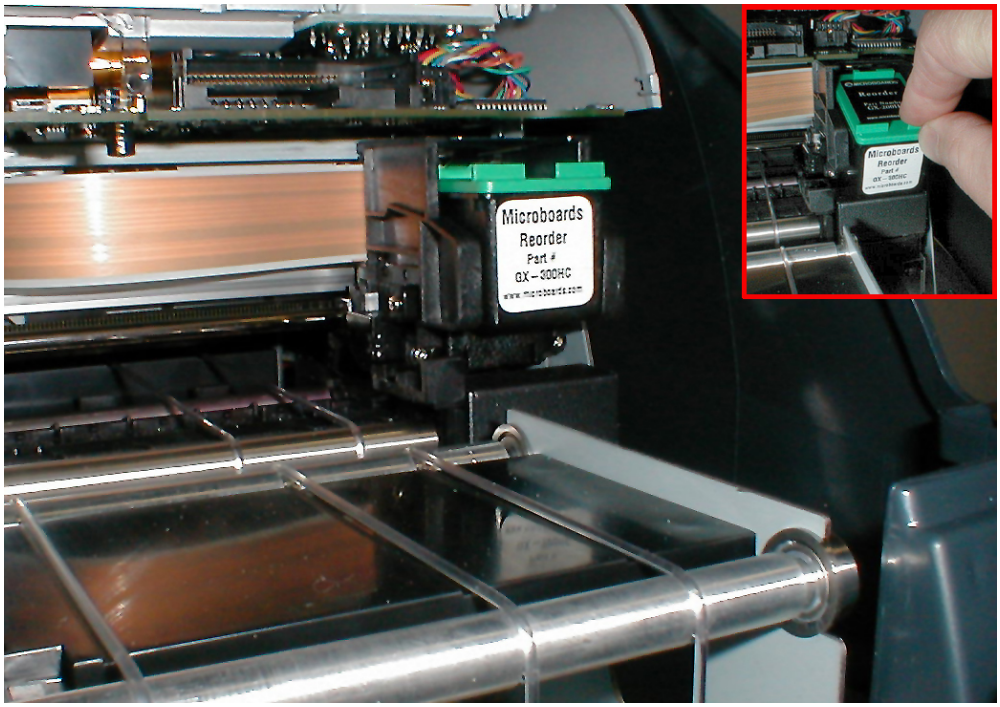
Refill kits or non-Microboards ink cartridges are not recommended for use in the GX Disc Printer system. Use of these types of cartridges will cause the printer to fail. Use of these types of cartridges will void the warranty.

Loading / Replacing Ink Cartridges

Cartridges can be changed while the GX Disc Printer is on, but it should never be turned on without an ink cartridge in place.

The GX Disc Printer system ships with one GX-300HC color ink cartridge.

- Remove the front cover. The print cartridge cradle will be on the right side of the GX Disc Printer, as shown below.
- Tilt the old cartridge forward to release the cartridge from the cradle, as shown in the inset below.
- Lift the old cartridge out of the cradle.
- Remove the new print cartridge from its packaging and carefully remove the plastic tape. Hold the print cartridge so that the copper strip is at the bottom.
- With the front of the new ink cartridge tilted down, slide the cartridge into the cradle.
- Tilt the front of the cartridge back up to lock the ink cartridge in place.
- Replace the front cover.



GX Disc Printer Installation

The GX Disc Printer installation disk includes an Installer that will walk you through the process step by step. Please use the Installer and follow the installation steps in order.

The following installation sections are intended only as a reference for the installation process, not as a guide to installing the GX Disc Printer. Performing the installation out of order could result in an unsuccessful installation.

The GX Disc Printer Installation Quick Reference Guide will show you the order in which the installation will occur.

Installation should always be done when logged in as a user with full Administrator rights.

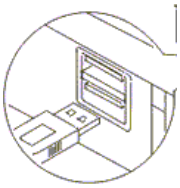
A reboot of your PC after the installation is complete is required before you will be able to use the Disc Printer.

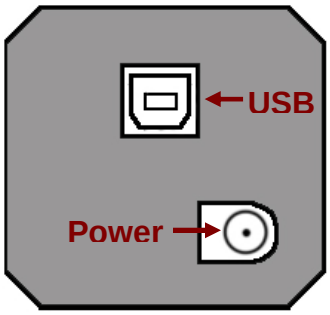
Connecting to a PC

DO NOT CONNECT YOUR GX DISC PRINTER TO A COMPUTER BEFORE BEING PROMPTED TO BY THE INSTALLER, LOCATED ON THE INSTALLATION DISC!!

The connection between the PC and the Microboards GX Disc Printer is done with one USB cable.

1. Plug the power cord into the back panel of the GX Disc Printer. ***Do not turn on power to the GX Disc Printer until an ink cartridge has been installed.***
2. Connect the square shaped end of the USB cable into the back panel of the GX Disc Printer.
3. Connect the flat, rectangular end of the USB cable into a USB 2.0 port in your PC.





USB Cable length exceeding 6 feet between the GX Disc Printer and the PC is not supported!

Windows 7 and Vista Hardware Installation

The Microboards GX Disc Printer Installer should always be run when logged in as user with full Administrator rights. This is required for the driver pre-installation to be successful. Once the GX Disc Printer is plugged into the PC via the USB connection, the hardware will automatically be found and installed on your PC.

During the driver pre-installation, you may need to verify that you would like to install the drivers.

If the Installer is run by a user without full Administrator rights, or you do not verify that the drivers should be installed, the hardware will need to be installed using the Hardware Wizard. Please follow the directions below.

Windows XP Hardware Installation

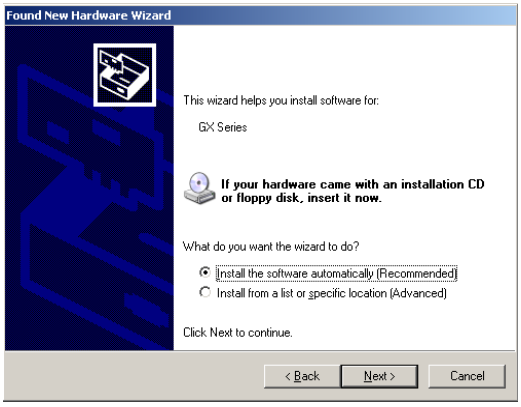
The Windows Found New Hardware Wizard will appear during any installation, including when using the Installer. Please follow all directions in the order in which they appear when using the Installer.

Install the GX-300HC cartridge and turn on power to the GX Disc Printer.

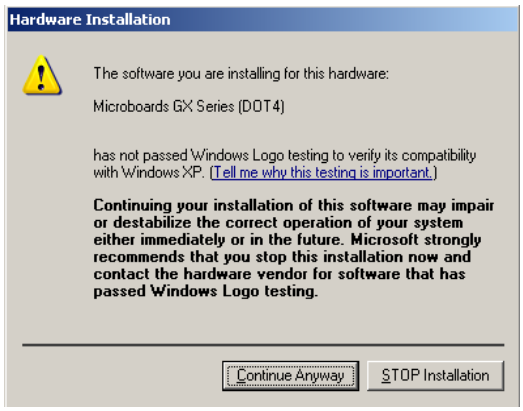
Insert the Microboards GX Disc Printer CD into a drive in your computer. Follow the instructions provided by the Installer. Connect the GX Disc Printer to the PC only when you are prompted to.

Once the GX Disc Printer is connected, the operating system will next display the following screen:

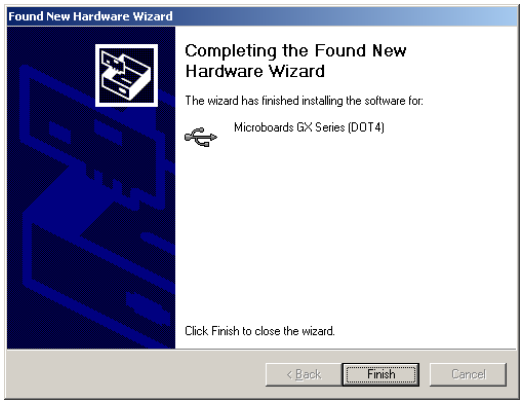
1. Select **No, not this time** and click **Next**.



2. Click **Next**.

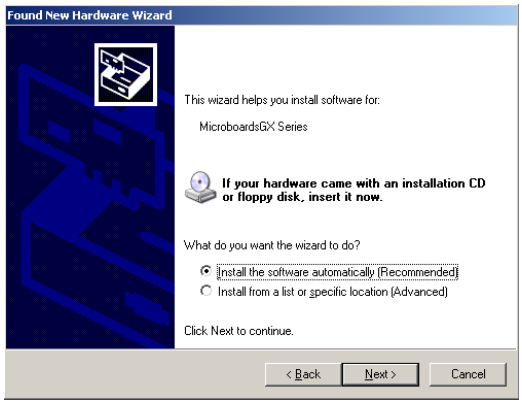


3. Click **Continue Anyway**.

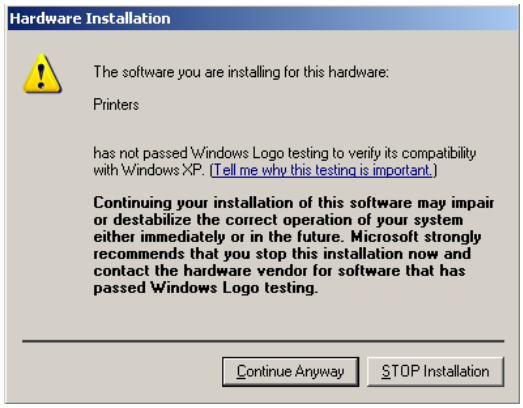


4. Click **Finish** for the next screen.

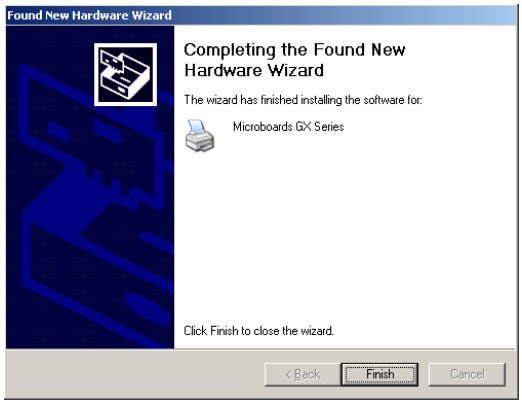
5. Select **No, not this time** and click **Next**.



6. Click **Next**.

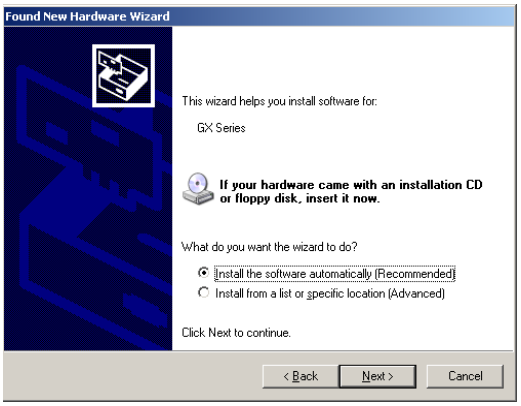


7. Click **Continue Anyway**.

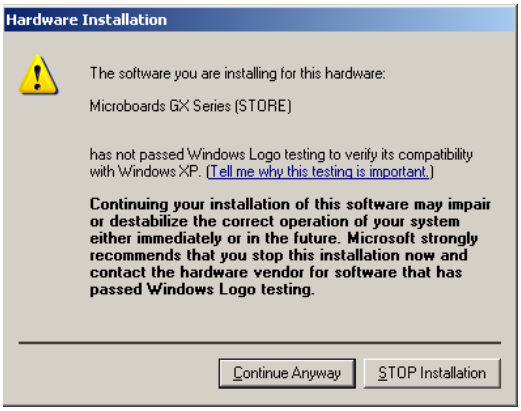


8. Click **Finish** for the next screen.

9. Select **No, not this time** and click **Next**.



10. Click **Next**.



11. Click **Continue Anyway**.

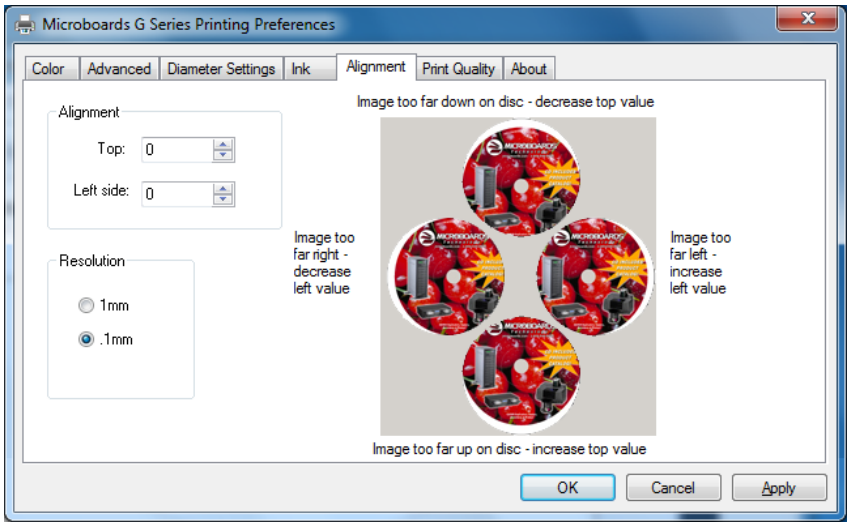
12. Click **Finish**.

Setting Printer Alignment

Alignment

The GX Disc Printer system has been aligned at the factory. The factory alignment values are on a label on the back of the GX Disc Printer. Follow these steps to enter the factory values:

- Click on the **Start** Button on your Windows computer.
- Select **Settings** and then **Printers**.
- Right click the Microboards G Series icon.
- Select **Printing Preferences**.
- Select the **Alignment** Tab.
- Click on the **.1mm** selection in the Resolution box.
- Enter the values listed with the GX Disc Printer into the **Top** and **Left Side** boxes.
- Click the **Apply** button.
- Click the **OK** button.



- Verify the alignment by printing full coverage image created in SureThing. The image should print centered on the disc. If not, adjust the **Top** and **Left Side** alignment values according to the graphic on the Alignment tab and repeat.

GX Toolbox

A shortcut to the GX Toolbox was added to your desktop during the printer installation. Double-click the icon to open the toolbox. For each of the functions, a blank disc will need to be loaded.

Print Test Disc

Load an unprinted disc in the input hopper prior to clicking this button to print a Test Disc image.

Exercise Belt

This utility should be run if the printer has been idle for an extended period of time, and can be run multiple times if necessary. The belts will run at high speed for a period of time to recondition the belts. It is not necessary to load any media for this utility.

Cleaning

The printheads may require cleaning if the printed images show streaks of color. This may occur if the GX Disc Printer has been idle for an extended period of time.

You will need to place a disc on the belts below the input hopper prior to running the Cleaning.

Running this process more than once may be required if the quality does not improve after cleaning one time.

Using the GX Disc Printer

Loading Discs

You should always load a disc prior to beginning the printing process. The system will accept CD, DVD, or BD 120 mm (12 cm) inkjet printable discs. If the disc does not have an inkjet printable surface, the ink will not adhere to the surface of the disc. The GX Disc Printer will only accept 12 cm discs. Business card or 8 cm discs are not supported by this system.

Place each disc to be printed on the belts in the Input Bin at the back of the GX Disc Printer.

DO NOT load more than 1 disc in the system at a time, or load a disc until the previous disc has reached the Output Bin, as this will cause the discs to feed incorrectly.

SureThing Disc Labeler

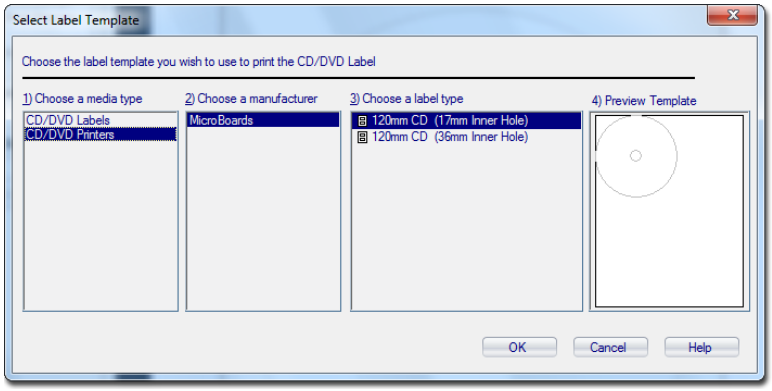
SureThing Disc Labeler is included with the GX Disc Printer and will be installed during the GX Disc Printer Installation. For more information on using SureThing, please refer to the SureThing Help menu.

Creating New Labels

Any label you create in SureThing must use the Microboards template to print correctly.

1. To create a new label, either click **New Project** in the Action window on the left, or select **New** from the **File** menu.
2. Click the **Select Label** button on the lower left corner of the dialog that opens to view the available label templates if the dialog that opens does not appear as shown below.
3. Highlight **CD/DVD Printers** in the Media Type column.
4. Highlight **Microboards** in the Manufacturer column.
5. Select from the options listed in the Label Type column.

   We recommend that you use the 17mm inner hole template to ensure that your image will fully cover the printable surface on both hub printable and non-hub printable media.



6. Click **OK** to begin designing the label.

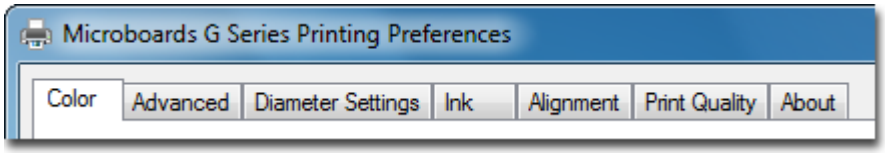
Printing Labels

Select **Print** from the File menu while the label you want to print is open. Be sure that you have selected the Microboards GX Series and that **CD/DVD Printer** is selected in the Print Using field before clicking the **Print** button.

If you are printing more than one copy of a label, enter in the number you wish to print before clicking the **Print** button. After each disc is printed, there will be a 5-second delay to allow for time to load another disc before the printer begins the print process again. If you do not load a disc within that 5-second delay, do not be concerned; after the GX Disc Printer fails to detect a disc, load the next disc into the Input Bin and click the **OK** button on the top of the GX Disc Printer to continue.

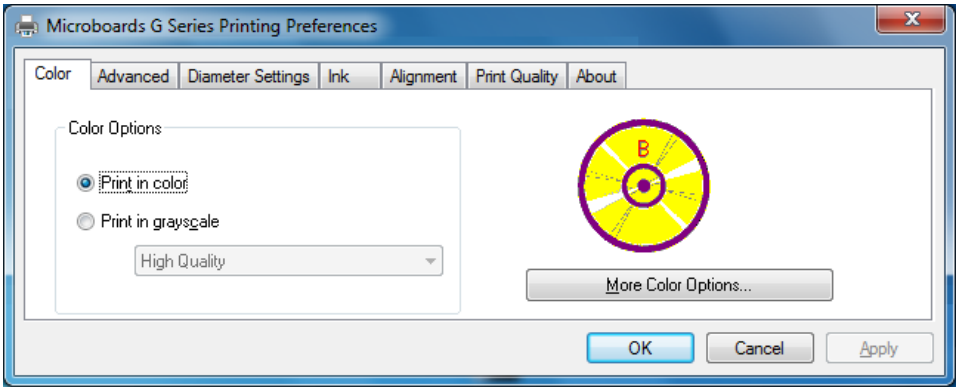
Printing Preferences

Access the Printing Preferences by clicking the **Start** Button on your Windows computer. Select **Settings** and then select **Printers**. Right click on the ***Microboards G Series*** icon, then select **Printing Preferences**. There are 7 tabs across the top of the window. Click each tab to see the available settings.



Color Tab

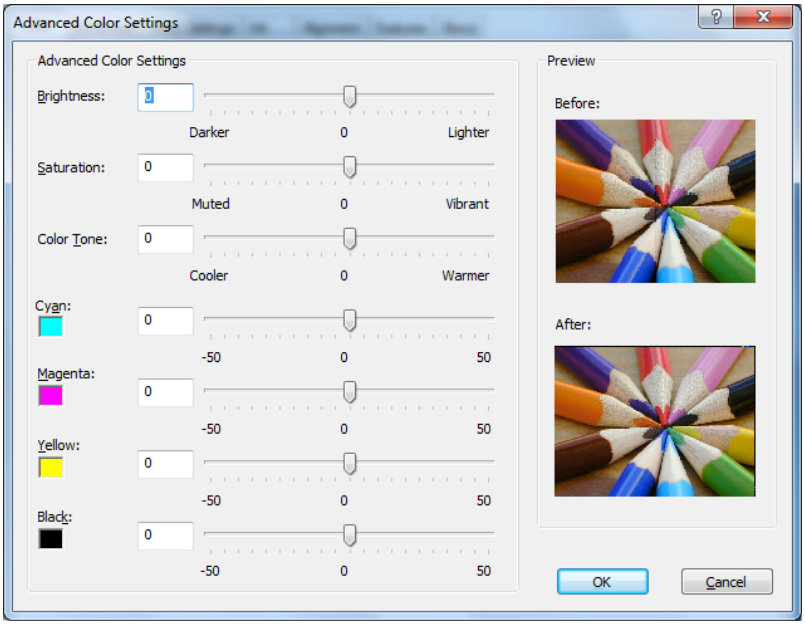
The Color Tab allows you to specify that the entire image should be printed in grayscale, or printed in sepia. You also have access to **More Color Options** from this tab.



More Color Options

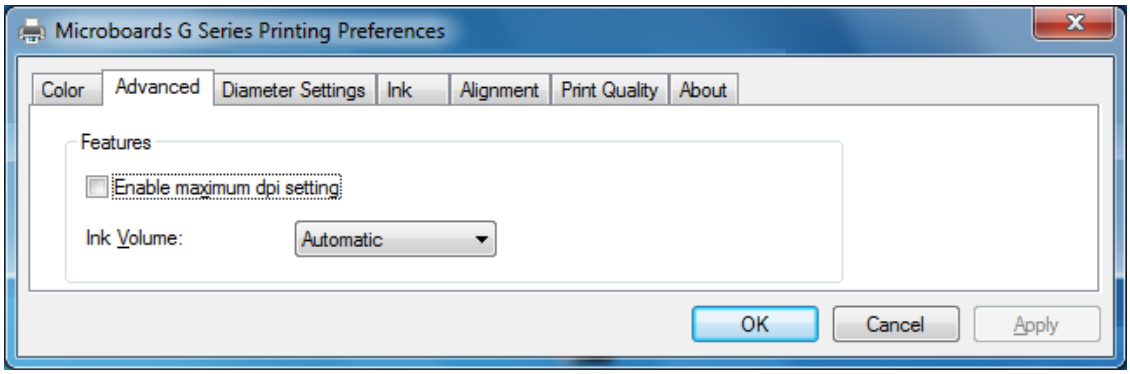
Saturation, **Brightness** and **Color Tone** allow you to fine tune your print image.

The four ink settings allow you to change the volumes used of each specific ink cartridge.



Advanced Tab

The Advanced Tab allows you to **Enable Maximum dpi setting** and adjust the amount of ink placed on the disc using the **Ink Volume** setting.



Enabling the maximum dpi will result in longer times to process your print image, reducing throughput.

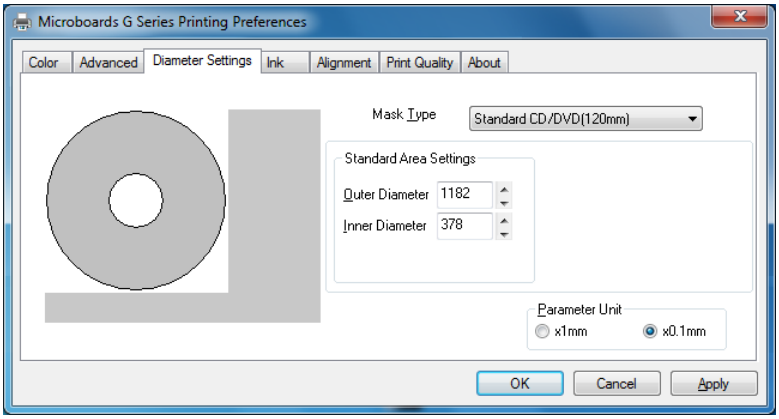
To change the Ink Volume, click the drop-down box and select Change. A window will open with a setting bar for the option selected.

Changing the Ink Volume will affect how quickly you need to replace your ink cartridges, but also affects the quality of the printed output.

The default settings are the recommended settings and should be used unless absolutely necessary.

Diameter Settings Tab

The Diameter Settings tab allows you to change the size of the print image to accommodate the variety of printable surface area available on media.



The Outer and Inner **Diameters** will change the size of the area to be printed. To avoid excessive ink buildup, these values should never be set so that the GX Auto Printer is printing off the media.

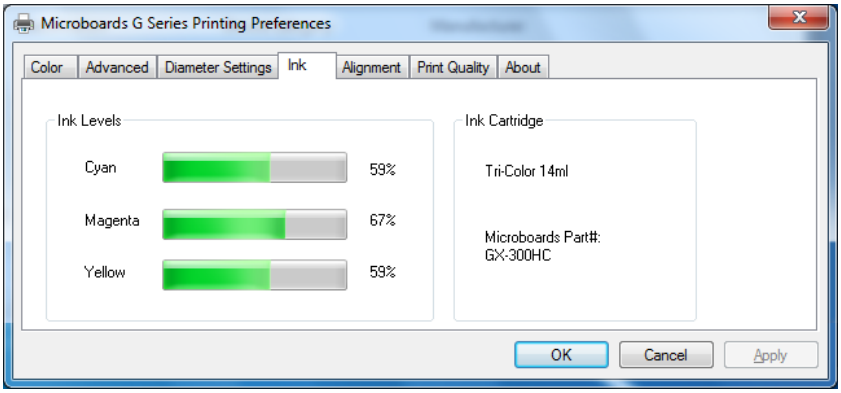
The Parameter Unit should remain on the **0.1mm** setting for maximum precision.

You can also select one of the preset **Mask Types** to change the diameter settings.

Ink Tab

The **Ink Levels** show how much remains of all 3 colors, Cyan, Magenta and Yellow.

NOTE: If you place a used cartridge in the GX Auto Printer, the ink level may not be reported correctly. If the GX can identify the cartridge, it may report the correct ink levels; if not, it will assume that the ink cartridge is new and will show ink levels of 100%.



Before each disc is printed, the ink levels are checked. If the level of any one color is has reached 10%, a warning message will be displayed on your PC and printing will be temporarily suspended. You can either change the cartridge at this point and click OK, or click OK to continue printing using the same cartridge.

If you continue with the same cartridge, printing will continue uninterrupted until the ink level reaches 5%. The low ink level warning will be displayed once more. Again, either change the cartridge or continue.

Once the ink level reaches 3% or less, the warning will be displayed before each print.

It is strongly recommended that you replace the cartridge at this point.

The **Ink Cartridge** information includes the re-order part number for the cartridge.

Alignment Tab

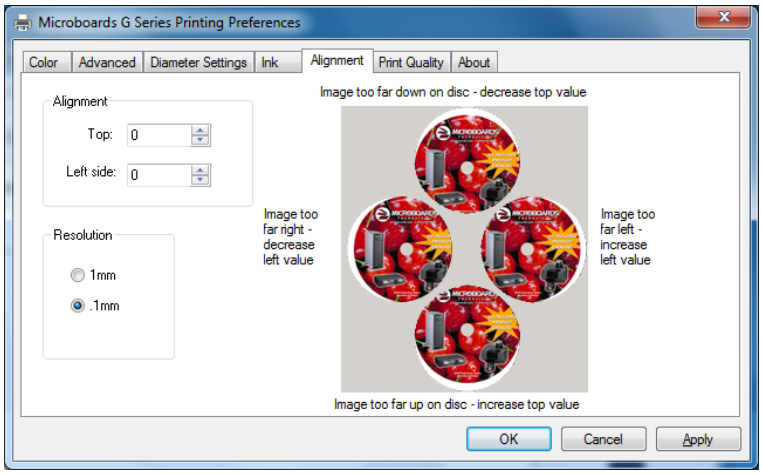
Alignment values will move the print image on the disc. Use the graphic on the right side of the tab as a guideline in how alignment values should be adjusted.

The **Resolution** setting should always be set at **.1mm** for best results.

The Outer and Inner **Diameters** will change the size of the area to be printed. To avoid excessive ink buildup, these values should never be set so that the GX Auto Printer is printing off the media.

The default diameter settings are **1180** for the Outer and **360** for the Inner when the Resolution is at .1mm. For hub-printable media, the Inner diameter should be reduced.

You may need to adjust the alignment depending on the media you are using *(see page 13)*.



Print Quality Tab

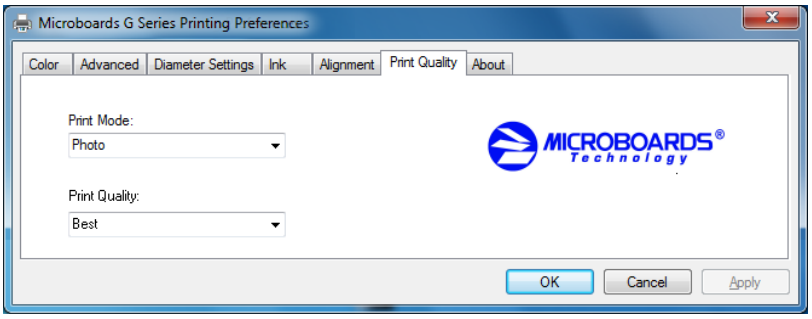
The Print Quality tab controls the print resolution.

Print Quality

- Best
- Normal

Print Modes

- Text and Graphics
- Photo



Printing Recommendations

Text and Graphics mode is used for printing mainly text information and small, simple graphics. Below are some examples for images in Fast, Normal and Best Modes:

Text and Graphics – Fast

Text and Graphics – Normal

Text and Graphics – Best

Photo Mode should be used when printing on the entire disc or when using detailed graphics. Here is an example:

Photo – Normal, Best, and 4800x1200 Modes

About Tab

The About tab provides you with contact information for the worldwide Microboards offices.

Manual Software Re-Installation

This section will only apply to a manual re-installation of the SureThing software package. If you have not yet installed the GX Disc Printer using the Installer, it is recommended that you do so.

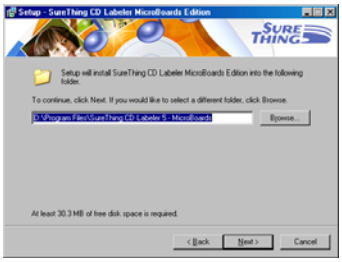
There are 3 methods of reinstalling SureThing should the need arise:

A. ***(Recommended)*** Insert the Microboards GX Disc Printer Installation CD into the CD/DVD ROM drive on your computer and select the **Repair** option when the installer starts. Click the **SureThing Disc Labeler** button to reinstall SureThing.

Follow these steps once the SureThing installer launches:

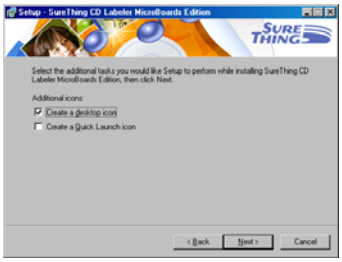
1. Click **Next** to continue.

2. Once the User License screen appears, select **I Accept** and click the **Next** button.



3. If you wish to change the default Install directory, it can be done here. Click **Next** when completed.

4. Click **Next** to add a shortcut in the Start Menu.



5. Choose to add an icon to your desktop and/or a folder in the Start Menu. Once selected, click **Next**.
6. Click **Install** to begin copying the files.

7. Remove the check to launch SureThing at this time, then click **Finish**.

B. Alternately, you can open the **Applications** directory on the Installation CD and run **SureThing.exe** to install SureThing manually. Follow the on-screen instructions as shown in steps 1-7 above.

C. The SureThing installer was also added to your hard drive in the event that you need to reinstall but do not have access to the Installation CD. Run **SureThing.exe** in the **C:\Program Files\Microboards\GX Installer\Applications** directory on your hard drive. Follow the on-screen instructions as shown in steps 1-7 above.

Troubleshooting

Printer not printing

1. Confirm the GX Disc Printer is plugged into a power source and is turned on. The ON/OFF switch is located at the back of the unit, above the power cable connector.
2. Confirm the green light on the power button is lit on the front panel. If AC power is on and the green light is off, press the power button firmly and wait for several seconds. If the light still does not come on, contact Microboards Technical Support.

3. Confirm the GX Disc Printer is connected to the computer, with a USB cable. This can be checked by clicking on Start, going to Settings and selecting Printers. Confirm the printer is listed and is active. If the icon is not active, make sure the Use Printer Offline is not selected. Also check to make sure the correct printer port is selected.

Red LED Flashing

This indicates an out of media state. Load media and press the OK button on the GX Disc Printer to clear the error state.

If a dialog appears on the PC stating that the printer did not recognize any media, you will need to press the OK button on the printer and click the OK button in the dialog to clear the error state.

Disk Feed error

1. If a disc is not loaded correctly, an error message will be displayed on your PC. Check to see if there are any discs on the belt. Remove any discs that are left on the belt.
2. Lift the cover and check for any discs on the front deck of the GX Disc Printer. Remove any discs found on the belts. Close the cover.

Low Ink indication

Before each disc is printed, the ink levels are checked. If the level of any one color is has reached 10%, a warning message will be displayed on your PC and printing will be temporarily suspended. You can either change the cartridge at this point and click OK, or click OK to continue printing using the same cartridge.

If you continue with the same cartridge, printing will continue uninterrupted until the ink level reaches 5%. The low ink level warning will be displayed once more. Again, either change the cartridge or continue.

Once the ink level reaches 3% or less, the warning will be displayed before each print.

It is strongly recommended that you replace the cartridge at this point.

If you notice poor ink quality or a missing color in your prints at any time, replace the ink cartridge.

Printing Specifications

Print Speed:
Depends upon percentage of coverage and print mode selected:
Photo Normal Mode: Approx. 45 seconds for 100% full-color coverage
Text & Graphics Best Mode: Approx. 20 seconds for 100% full-color coverage
Text & Graphics Normal Mode: Approx. 12 seconds for 20% coverage

Ink Cartridge Types:
Microboards GX-300HC

Media Types:
Printable-surface 120mm CD-R or DVD-R

Label Editing Software:
SureThing™ First Edition Software for Windows included

Maximum Print Width:
4.72" (120mm)

Power Supply:
Auto Detect AC Power:
90VAC – 240VAC, 47Hz – 63Hz

Warranty:
One Year Limited Warranty

Print Technology:
HP Thermal Inkjet
Print Quality, Black: 600 x 600 dpi, with HP PhotoREt
Print Quality, Color: up to 4800 x 1200 optimized dpi, with HP PhotoREt
Color Technology: HP PhotoREt

Memory:
64MB

Connectivity:
USB. USB 2.0 recommended

Technical Support

For technical questions or support issues, contact Microboards Technology technical support:

United States	Europe	Japan
PH: 952-556-1639	PH: +44 (0) 845 230 7800	PH: 03-3561-2266
FAX: 952-556-1628	www.microboards.co.uk	www.microboards.co.jp
support@microboards.com		
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Please have the Model and Serial Number of your GX Disc Printer available when contacting Technical Support.